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Japanese Beetles Emerge in Iowa

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ICM News

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By Erin Hodgson, Department of Entomology

Japanese beetle is becoming a more common field crop pest in Iowa. Literature shows adults need about 1,030 growing degree days (base 50°F) to complete development. Japanese beetles will continue emergence until around 2,150 degree days. Based on accumulating degree day temperatures in 2014, Japanese beetle adults should be active in some areas of southeastern and southwestern Iowa this week (Fig. 1). Expect adults to emerge in central and northern Iowa in about 7-14 days if warm temperatures continue.

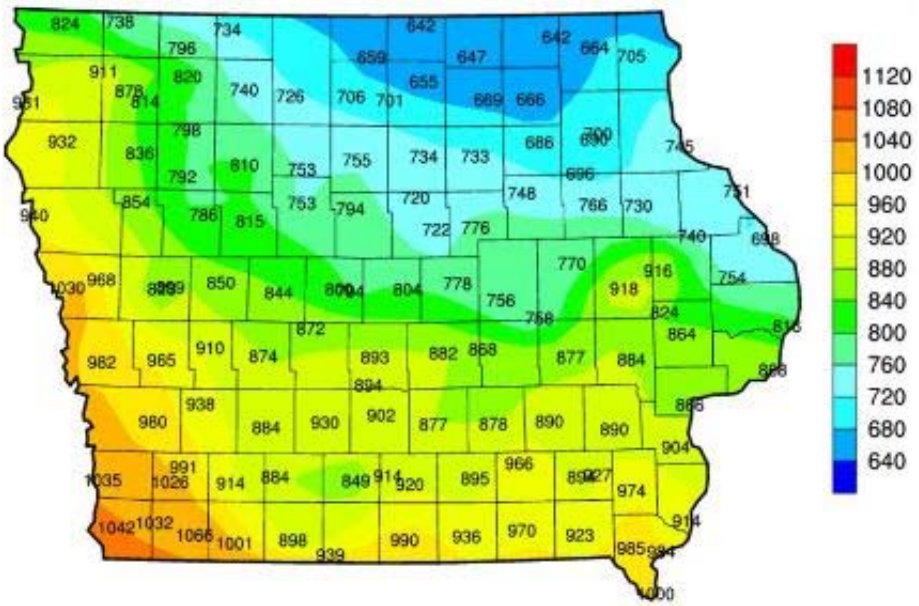

Figure 1. Growing degree days accumulated (base 50°F) for Japanese beetle adults in Iowa (January 1 - June 12, 2014). Adults begin emergence around 1,030 degree days. Map courtesy of Iowa Environmental Mesonet, Iowa State University Department of Agronomy.

To more accurately predict adult emergence in your area this summer, use this website to generate up-to-date information. Click on the "View Degree Day Map" button in the left corner of the page, and then set the parameters for degree days to create a new map. Make sure to set the start date to January 1 of the current year and the end date to today; set the base temperature to 50°F and the ceiling temperature to 86°F.

Injury and management

Japanese beetles have a wide host range that includes many species of fruit, vegetables, ornamentals and field crops. Adults are metallic bronze and green with white tufts along the side of the abdomen (Photo 1). There are some look-alike beetle species that may be confused with Japanese beetle.

Photo 1. Japanese beetle. Photo by David Cappaert, www.ipmimages.org.

Adults prefer to feed between soybean leaf veins, but can ultimately consume most of the leaf (Photo 2). The treatment threshold for Japanese beetles in soybean is 30 percent defoliation before bloom and 20 percent defoliation after bloom. Most people tend to overestimate plant defoliation, but this reference can help with more accurate estimations. In corn, Japanese beetles can feed on leaves, but the most significant damage comes from clipping silks during pollination (Photo 3). Consider a foliar insecticide during tasseling and silking if there are three or more beetles per ear, silks have been clipped to less than one-half inch AND pollination is less than 50 percent complete.

Photo 2. Japanese beetles skeletonize soybean leaves. Photo by Mark Licht, Iowa State University.

Photo 3. Japanese beetles are strongly attracted to silking corn. Photo by Erin Hodgson, Iowa State University.

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Erin Hodgson started working in the Department of Entomology at Iowa State University in 2009. She is an Associate Professor with extension and research responsibilities in corn and soybean. She has a general background in integrated pest management for field crops. Erin's current extension and...